

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. Cancelled

2. (Currently Amended) A magnetoresistive head comprising a magnetoresistive layer which converts magnetic signals to electric signals, a pair of electrodes for allowing an electrically sensing current to flow across said magnetoresistive layer, upper and under gap layers placed over and beneath said pair of electrodes and said magnetoresistive layer, and upper and under shield layers, one of which is placed over said upper gap layer and the other is placed beneath said under gap layer, wherein at least either of said upper and under gap layers is made of varistor material.

3-4. Cancelled

5. (Previously Presented) The magnetoresistive head according to claim 2, wherein said magnetoresistive head employs a material consisting of ZnO, SiC, BaTiO, Si, or SrTiO films or films whose main element is one of these substances as said varistor material.

6-7. Cancelled

8. (Currently Amended) The magnetoresistive head according to claim 2, wherein said magnetoresistive head employs a material which exhibits varistor characteristics and is a multi layered structure made up of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅, MnO, NiO, CoO, Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ films or oxide films whose main element is one of these substances in combination with films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films as the above varistor material.

9. Cancelled

10. (Currently Amended) ~~The~~ A magnetoresistive head according to claim 7,
comprising a magnetoresistive layer which converts magnetic signals to electric signals, a pair of electrodes for allowing an electrically sensing current to flow across said magnetoresistive layer, upper and under gap layers placed over and beneath said pair of electrodes and said magnetoresistive layer, and upper and under shield layers, one of which is placed over said upper gap layer and the other is placed beneath said under gap layer, wherein said pair of electrodes and at least either of said upper and under shield layers are

electrically connected by varistor material that also
interconnects said pair of electrodes;

wherein said magnetoresistive head employs a material
which exhibits varistor characteristics and is multi layered
structure made up of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅, MnO, NiO, CoO,
Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ films or oxide films whose
main element is one of these substances in combination with
films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films
as the above varistor material; and

wherein said material is formed in a multi-layer wherein
the thickness of a film made of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅,
MnO, NiO, CoO, Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ or an oxide
film whose main element is one of these substances is 5 nm or
less.

11. (Currently Amended) ~~The~~ A magnetoresistive head
comprising a magnetoresistive layer which converts magnetic
signals to electric signals, a pair of electrodes for allowing
an electrically sensing current to flow across said
magnetoresistive layer, upper and under gap layers placed over
and beneath said pair of electrodes and said magnetoresistive
layer, and upper and under shield layers, one of which placed
over said upper gap layer and the other placed beneath said

under gap layer, wherein at least either of said upper and under gap layers is made of varistor material;

wherein said magnetoresistive head employs a material which exhibits varistor characteristics and is multi layered structure made up of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅, MnO, NiO, CoO, Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ films or oxide films whose main element is one of these substances in combination with films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films as the above varistor material; and

~~The a~~ magnetoresistive head ~~according to claim 8~~, wherein said material is formed in a multi-layer wherein the thickness of a film made of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅, MnO, NiO, CoO, Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ or an oxide film whose main element is one of these substances is 5 nm or less.

12. (Currently Amended) ~~The A~~ magnetoresistive head ~~according to claim 9~~, comprising a magnetoresistive layer which converts magnetic signals to electric signals, a pair of electrodes for allowing an electrically sensing current to flow across said magnetoresistive layer, upper and under gap layers placed over and beneath said pair of electrodes and said magnetoresistive layer, and upper and under shield layers, one of which is placed over said upper gap layer and the other is placed beneath said under gap layer, wherein

leads of said upper and under shield layers and leads extended out of lead terminals of said electrodes are connected by varistor material on the side where a magnetoresistive element does not exist, when viewed from the lead terminals of said pair of electrodes;

wherein said magnetoresistive head employs a material which exhibits varistor characteristics and is multi layered structure made up of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅, MnO, NiO, CoO, Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ films or oxide films whose main element is one of these substances in combination with films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films as the above varistor material; and

wherein said material is formed in a multi-layer wherein the thickness of a film made of Al₂O₃, SiO₂, Ta₂O₅, Bi₂O₅, MnO, NiO, CoO, Fe-O, TiO₂, HfO₂, ZrO₂, or Nb₂O₅ or an oxide film whose main element is one of these substances is 5 nm or less.

13. Cancelled

14. (Previously Presented) A magnetic head assembly comprising the magnetoresistive head according to claim 2 in combination with an inductive thin-film head.

15-16. Cancelled

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17. (Previously Presented) A magnetic read/write device
with the magnetic head assembly according to claim 14
installed thereon.

18. Cancelled